



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,200	08/30/2006	George Philip Lahm	BA9332USPCT	7400
7590	12/10/2009		EXAMINER	
Linda D Birch E I du Pont de Nemours and Company 4417 Lancaster Pike Wilmington, DE 19805			BROWN, COURTNEY A	
ART UNIT	PAPER NUMBER		1616	
MAIL DATE	DELIVERY MODE		12/10/2009 PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/591,200	Applicant(s) LAHM ET AL.
	Examiner COURTNEY BROWN	Art Unit 1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 29 July 2009.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-15 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-15 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application
6) Other: _____

DETAILED ACTION

Acknowledgement of Receipt/Status of Claims

This Office Action is in response to the amendment filed July 27, 2009. Claims 1-15 are pending and are being examined for patentability.

Rejections not reiterated from the previous Office Action are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set of rejections and/or objections presently being applied to the instant application.

Withdrawn Rejection(s)

The obviousness-type double patenting rejection of claims 1, 3, and 7 over claims 1, 17 and 19 of copending Application 11/700,584 (now claims 1,15 and 16 of granted U.S. Patent No. 7,541,377) has been withdrawn.

The obviousness-type double patenting rejection of claims 1, 3, and 7 over claims 1 and 2 of copending Application 12/141,170 has been withdrawn.

The obviousness-type double patenting rejection of claims 1, 3, and 7 over claims 1, 3, 12, 13, and 22 of U.S. Patent No. 6,747,047 B2 is maintained.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1, 3, and 7 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 12, 13, and 22 of U.S. Patent No. 6,747,047 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly claimed subject matter embraces or is embraced by US Patent 6,747,047 B2 ("047 ").

Instant claims 1,3, and 7 and patented claims 1,3,12,13, and 22 are both directed to the compound of instant Formula 1, a composition comprising said compound, and a method for controlling pests comprising contacting said pests or their environment with an effective amount of said compound. The difference between the invention of the instant application and that of US Patent 6,747,047 B2 is that the instant invention is used to control invertebrate pest as opposed to arthropods. It is known to one of ordinary skill in the art that invertebrate pest such as spiders belong to the *Arthropoda* phylum. From this extensive overlap of subject matter, one of ordinary skill in the art would recognize that the same product is produced in US Patent ("047").

Examiner's Response to Applicant's Remarks

Applicant's arguments filed on April 7, 2008, with respect to the 103 rejection of claims 1, 3, and 7 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 3, 12, 13, and 22 of U.S. Patent No. 6,747,047 B2 have been fully considered but are not persuasive. Applicant argues that present claims 1, 3 and 7 are patentably distinct from claims 1, 3, 12, 13 and 22 of US Patent 6,747,047 because the broad disclosure and claims of Lahm et al. do not teach or lead one skilled in the art to the present invention. For example, Applicant points out that R7 of Lahm et al. Formula I can be alkyl, alkenyl, alkynyl or cycloalkyl, or optionally **substituted phenyl**, benzyl, 5- or 6-membered heteroaromatic ring, a naphthyl ring system or an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system whereas

compared to this broad description, the compounds of the present method comprise a **phenyl ring** with two precisely positioned substituents. Applicant further points out that the phenyl ring of Lahm et al. can be either unsubstituted, or poly-substituted with a wide range of substituents; whereas the phenyl ring in the compounds of the present method is only mono-, di- or tri- substituted with halogen or methyl. However, the Examiner disagrees with Applicant's argument because it would have been obvious to one of ordinary skill in the art at the time of the invention to select any of the species of the genus taught by the reference, including those instantly claimed, because the skilled chemist would have the reasonable expectation that any of the species of the genus would have similar properties, and thus, the same use as taught for the genus as a whole. One of ordinary skill in the art would have been motivated to select the claimed compounds from the genus in the reference since such compounds would have been suggested by the reference as a whole. A prior art disclosed genus of useful compounds is sufficient to render *prima facie* obvious a species falling within a genus. Thus, Applicant's claims are unpatentable over claims 1, 3, 12, 13, and 22 of U.S. Patent No. 6,747,047 B2.

Terminal Disclaimer

The terminal disclaimer filed on July 27, 2009 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of Application **12/141170** has been reviewed and is accepted. The terminal disclaimer has been recorded.

The rejection of claims 1-15 under 35 U.S.C. 103(a) over Lahm et al. (WO 01/70671 A2) in view of Lahm et al. (US Patent Application 2004/0063738 A1) is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

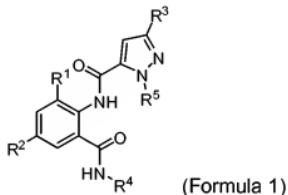
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lahm et al. (WO 01/70671 A2) in view of Lahm et al. (US Patent Application 2004/0063738 A1).

Applicant's Invention

Applicant claims a compound of Formula 1, an N-oxide or a salt thereof



wherein **R1** is Me, C1, Br or I; **R2** is -CN; **R3** is C1, Br, CF3, OCH2CF3 or OCF2H; **R4** is H; or C1-C4 alkyl, C2-C4 alkenyl or C2-C4 alkynyl, each optionally substituted with CN or SMe; and **R5** is phenyl substituted with 1 to 3 substituents selected from the group consisting of F, C1, Br and Me. Applicant also claims a method and composition (in the form of a soil drench formulation, a spray composition, and a bait composition) for controlling an invertebrate pest comprising the use of the aforementioned compound of Formula 1.

***Determination of the scope and the content of the prior art
(MPEP 2141.01)***

Lahm et al. teach compounds of Formula (A) (see below), their N-oxides and agriculturally suitable salts, methods for controlling arthropods comprising contacting the arthropods or their environment with an arthropodicidally effective amount of a compound of Formula (A), and compositions containing the compounds of Formula (A) (abstract).



Specifically, Lahm et al. teach the compound of Formula A wherein A and B is O; J is a 5-membered heteroaromatic ring (i.e. pyrazole) optionally substituted with 1 to 4 R7; R7 is a phenyl that is optionally substituted with one to three substituents independently with a halogen group; R1 is H; R2 and R3 is H, C1-C6 alkyl, C2-C6 alkenyl, or C2-C6 alkynyl and R4 is independently H, C1-C6 alkyl or CN; provided that:

- (i) at least one R4 and at least one R7 are other than H ;
- (ii) J is other than an optionally substituted 1, 2, 3-thiadiazole ; and
- (iii) when J is an optionally substituted pyrazole, tetrazole or pyrimidine, then R2 and R3 cannot both be hydrogen (see pages 4-7 of Lahm et al. and the compound of instant Formula 1 wherein R1= Me; R2=CN;R3=Cl or Br; R4=H; or C1-C4 alkyl orC2-C4 alkenyl; and R5= phenyl substituted with 1 to 3 substituents selected from the group consisting of F,Cl,Br, and Me). Lahm et al. teach a composition comprising the active

Formula A preferably combined with at least one biologically active compound selected from the group consisting of cyhalothrin, beta-cyfluthrin, esfenvalerate, methomyl, imidacloprid, thiacloprid, indoxacarb, abamectin, endosulfan, fipronil, flufenoxuron, pyriproxyphen, pymetrozine, amitraz, *Bacillus thuringiensis*, and *Bacillus thuringiensis delta endotoxin* (see page 166, lines 3-15, claims 3-6 of instant application). Lahm et al. teach a method for the control of foliar and soil inhabiting arthropods and nematode pests and protection of agronomic and/or nonagronomic crops, comprising applying one or more of the compounds of Formula A or compositions containing at least one such compound, in an effective amount, to the environment of the pests including the agronomic and/or nonagronomic locus of infestation, to the area to be protected, or directly on the pests to be controlled (page 166, lines 23-29, claims 7 and 8 of instant application). Lahm et al. teach spraying as a preferred method of application as well as other methods including direct and residual sprays, aerial sprays, seed coats, microencapsulations, systemic uptake, baits, eartags, boluses, foggers, fumigants, aerosols, and dusts (page 166, lines 29- 33, claims 10 and 14 of instant application). Lahm et al. teach that the compounds of Formula A can be incorporated into baits that are consumed by the arthropods or in devices such as traps and the like (page 166, lines 33 and 34, claim 15 of instant application). Lahm et al. teach formulations comprising one or more compounds of Formula A combined with suitable carriers, attractants, diluents, and surfactants and possibly in combination with food (page 166, lines 35-38, claim 3 of instant application). Lahm et al. teach that the compounds of Formula A exhibit activity against a wide spectrum of foliar-feeding, fruit-feeding, stem

or root feeding, seed-feeding, aquatic and soil-inhabiting arthropods including the German cockroach (page 164, line 16) and pests of the Orders Hymenoptera (i.e. ant, wasps and sawflies, page 164, line 2, claims 9 and 10 of instant application).

***Ascertainment of the difference between the prior art and the claims
(MPEP 2141.02)***

The difference between the invention of the instant application and that of Lahm et al. is that Lahm et al. do not expressly teach a method wherein the composition comprising instant Formula 1 is in the form of a soil drench liquid formulation. This deficiency in Lahm et al. is cured by the teachings of Lahm et al.('738). Lahm et al. teach the use a soil drench of a liquid formulation ([0267]) comprising a composition for controlling invertebrate pest such as ants, wasps, and cockroaches ([0259]).

Finding of prima facie obviousness

Rationale and Motivation (MPEP 2142-2143)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of the two cited references to arrive at a method for controlling an invertebrate pest comprising the use of the aforementioned compound of Formula A (Formula 1 of instant application) in a soil drench liquid formulation. Both references teach active compounds that are used to control pest commonly found in the soil. One would have been motivated to make this combination in order to receive the

expected benefit of having a method of introducing the claimed active compound of instant Formula 1 directly into the pest's habitat (i.e., soil). Thus, in view of *In re Kerkhoven*, 205 USPQ 1069 (C.C.P.A. 1980), it is *prima facie* obvious to combine two or more compositions each of which is taught by prior art to be useful for the same purpose in order to form a third composition that is to be used for the very same purpose. The idea of combining them flows logically from their having been individually taught in prior art.

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Examiner's Response to Applicant's Remarks

Applicant's arguments, see pages 6-9, filed July 27, 2009, with respect to the obviousness-type double patenting rejection of claims 1, 3, and 7 over claims 1, 17 and 19 of copending Application 11/700,584 (now claims 1,15 and 16 of granted U.S. Patent No. 7,541,377) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn.

Applicant's arguments, see pages 6-9, filed July 27, 2009, with respect to the obviousness-type double patenting rejection of claims 1, 3, and 8 over claims 1 and 2 of copending Application 12/141170 are moot in view of the Terminal Disclaimer filed on July 27, 2009.

Applicant's arguments filed on April 7, 2008, with respect to the 103 rejection of claims 1-15 under 35 U.S.C. 103(a) as being unpatentable over Lahm et al. (WO 01/70671 A2) in view of Lahm et al. (US Patent Application 2004/0063738 A1) have been fully considered but are not persuasive. Applicant argues that present claims 1, 3 and 7 are patentably distinct from US Patent 6,747,047. Applicant argues that present claims 1, 3 and 7 are patentably distinct from claims 1, 3, 12, 13 and 22 of US Patent 6,747,047 because the broad disclosure and claims of Lahm et al. do not teach or lead one skilled in the art to the present invention. For example, Applicant points out that R7 of Lahm et al. Formula I can be alkyl, alkenyl, alkynyl or cycloalkyl, or optionally **substituted phenyl**, benzyl, 5- or 6-membered heteroaromatic ring, a naphthyl ring system or an aromatic 8-, 9- or 10-membered fused heterobicyclic ring system whereas compared to this broad description, the compounds of the present method comprise a **phenyl ring** with two precisely positioned substituents. Applicant further points out that the phenyl ring of Lahm et al. can be either unsubstituted, or poly-substituted with a wide range of substituents; whereas the phenyl ring in the compounds of the present method is only mono-, di- or tri- substituted with halogen or methyl. However, the Examiner disagrees with Applicant's argument because it would have been obvious to

one of ordinary skill in the art at the time of the invention to select any of the species of the genus taught by the reference, including those instantly claimed, because the skilled chemist would have the reasonable expectation that any of the species of the genus would have similar properties, and thus, the same use as taught for the genus as a whole. One of ordinary skill in the art would have been motivated to select the claimed compounds from the genus in the reference since such compounds would have been suggested by the reference as a whole. Thus, prior art disclosed genus of useful compounds is sufficient to render *prima facie* obvious a species falling within a genus.

With respect to US 6,747,071 (which is a US national phase entry from the PCT application which published as WO01/70671), Applicant argues that in Tables 1-17 of Lahm et al., there is not one compound with a substituent at the 4-position on the phenyl ring. Applicant points to Index Table D of Lahm et al., which lists 241 compounds wherein R7(b) is substituted phenyl and argues that only 8 of those compounds have a substituent at the 4-position on the phenyl ring and that none are -CN. The Examiner agrees with Applicant's arguments, however, when considering a prior art reference, the whole reference is considered. Most importantly, Lahm et al. does teach R2 = CN as defined in instant claim 1 (**see pages 5-6, the compound of formula I, specifically page 6, lines 9 and 10 wherein R4=CN of WO 01/70671**).

Applicants point out that the compounds of the secondary reference, US 2004/0063738 are completely different from those of WO 01/070671. Applicant argues that the compounds of US 2004/0063738 are phthalic acid diamides whereas the compounds of the present application are anthranilamides. Thus, Applicant concludes

that there is no motivation for combining these references. However the Examiner disagrees with Applicant's arguments because US 2004/0063738 is a secondary reference which was used to show that use a soil drench of a liquid formulation ([0267]) comprising a composition for controlling pest such as ants, wasps, and cockroaches was known at the time of the instant application.

In light of the forgoing discussion, the Examiner concludes that the subject matter defined by the instant claims would have been obvious within the meaning of 35 USC 103(a).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Conclusion

The claims remain rejected.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR Only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electron Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Courtney Brown, whose telephone number is 571-270-3284. The examiner can normally be reached on Monday-Friday from 8 am

to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, Johann Richter can be reached on 571-272-0646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Courtney A. Brown
Patent Examiner
Technology Center 1600
Group Art Unit 1616

/Ernst V Arnold/
Primary Examiner, Art Unit 1616